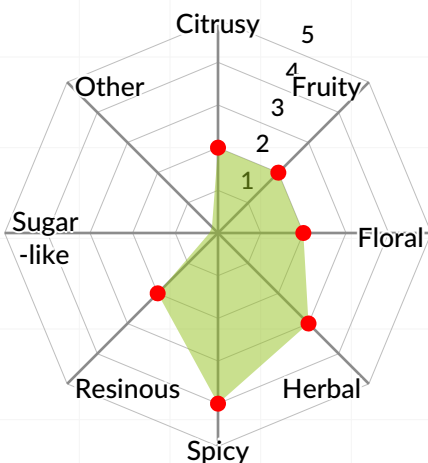


AROMA EVALUATION



VISUAL EVALUATION



AROMA SPECIFICATION

spicy, grassy, tea, slight citrusy

GENETIC ORIGIN

A landrace variety originating in Germany.

AGRONOMIC ASPECTS

GROWING

Yield (kg/ha)	1,050 - 1,300
Maturity	Early
Main Growing Country	Germany
Acreage (ha)	723

RESISTANCE AGAINST DISEASES

Wilt diseases	Susceptible
Downy mildew	Susceptible
Powdery mildew	Tolerant
Aphid	Susceptible

CHEMICAL INGREDIENTS

BITTER COMPONENTS

Alpha-Acid %	3.0 - 5.5
Beta-Acid %	3.0 - 5.0
Co-Humulone % rel.	18 - 28
Hard Resins : Alpha-Acid	0.23 - 1.05

POLYPHENOLS

Total Polyphenoles	> 4.6
Xanthohumol (EBC 7.7)	0.2 - 0.3

AROMA COMPONENTS

Total Oils (ml/100g)	0.7 - 1.3
Beta-Caryophyllene: Humulene	0.29 - 0.30
Farnesene % of total Oil	0.00 - 1.00
Linalool % of total Oil	0.7 - 1.1
Linalool: Alpha-Acid	0.20 - 0.23

HOP ALTERNATIVES

BREWHOUSE

Hallertauer Tradition

DRY HOPPING

Saphir

HOPS HOTLINE
800.339.8710